

**WHAT IS CLAIMED IS:**

1. A cutting tool comprising:

a cemented carbide body comprising WC with an average grain size of about  $1.4\ \mu\text{m}$ , 12-13 wt-% Co, 0.4-1.8 wt-% TaC+NbC, and a low W-alloyed binder phase with a CW-ratio of  
5 0.82-0.91; and

a coating comprising:

- a first innermost  $0.1\text{-}0.5\ \mu\text{m}$  thick layer of TiN;

- a second layer comprising a multilayered structure of  $0.05\text{-}0.2\ \mu\text{m}$  thick sublayers of a composition  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$  in which x varies repeatedly between the two ranges

10  $0.45 < x < 0.55$  and  $0.70 < x < 0.80$ , a first sublayer of  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$  adjacent to the TiN

bonding layer having an x-value of  $0.45 < x < 0.55$ , a second sublayer of  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$

having an x-value of  $0.70 < x < 0.80$  and a third sublayer having x of  $0.45 < x < 0.55$ , the sequence of sublayers alternating and repeating until 12-25 sublayers are built up;

- a third  $0.1\text{-}0.5\ \mu\text{m}$  thick layer of  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$ , where x is  $0.45 < x < 0.55$ ; and

15 - a fourth outermost  $0.1\text{-}0.2\ \mu\text{m}$  layer of TiN;

wherein the total coating thickness is  $1\text{-}8\ \mu\text{m}$  and the thickness of the second layer constitutes 75-95% of the total coating thickness.

2. The cutting tool according to claim 1 wherein the cemented carbide body has a

20 composition comprising 12.3-12.9 wt-% Co and 0.5-1.7 wt% TaC+NbC.

3. The cutting tool according to claim 1 wherein the cemented carbide body is free from graphite.

4. A method of making a cutting tool, the cutting tool comprising a WC-Co based cemented carbide body comprising WC with an average grain size of about  $1.4\ \mu\text{m}$ , 12-13 wt-% Co and 0.4-1.8 wt-% TaC+NbC, and a low W-alloyed binder phase with a CW-ratio of 0.82-0.91, the method comprising:

5       - applying by PVD a first innermost  $0.1\text{-}0.5\ \mu\text{m}$  bonding layer of TiN to the body;  
      - applying by PVD a second layer comprising a multilayered structure comprising a plurality of  $0.05\text{-}0.2\ \mu\text{m}$  thick sublayers of a composition  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$  in which x varies repeatedly between the two ranges  $0.45 < x < 0.55$  and  $0.70 < x < 0.80$ , a first sublayer of  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$  adjacent to the TiN bonding layer having an x-value of  $0.45 < x < 0.55$ , a second sublayer of  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$  having an x-value of  $0.70 < x < 0.80$  and a third sublayer having x in the range  $0.45 < x < 0.55$ , the sequence of sublayers alternating and repeating until 12-25 sublayers are built up;

      - applying by PVD a third  $0.1\text{-}0.5\ \mu\text{m}$  thick layer of  $(\text{Ti}_x\text{Al}_{1-x})\text{N}$ , where x is  $0.45 < x < 0.55$ ; and

15       - applying by PVD a fourth outermost  $0.1\text{-}0.2\ \mu\text{m}$  layer of TiN;

      wherein the total coating thickness close to a cutting edge of the tool is in the range of  $1\text{-}8\ \mu\text{m}$  and the thickness of the second layer constitutes 75-95% of the total coating thickness,

20       5. The method according to claim 4 wherein the cemented carbide body comprises a WC-Co composition of WC with an average grain size of about  $1.4\ \mu\text{m}$ , 12-13 wt-% Co and 0.4-1.8 wt-% TaC+NbC, and a low W-alloyed binder phase with a CW-ratio of 0.82-0.91.

      6. The method according to claim 4 wherein the wear resistant coating is deposited by CVD techniques.